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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Vladimir Pavlović and James M. Rehg

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Application No.: 09/654,401

Group Art Unit: 2681

DEC 18 2000

Filed: September 1, 2000

Examiner:

Technology Center 2600

Title: METHOD FOR MOTION SYNTHESIS AND INTERPOLATION USING
SWITCHING LINEAR DYNAMIC SYSTEM MODELS

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231	
on	12/8/00
Date	Signature
Ann M. Giso	
Typed or printed name of person signing certificate	



INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

This Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or
(First/Second submission after Final Rejection)

☒ under 37 CFR 1.97(b), or
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☐ under 37 CFR 1.97(c) together with either:

☐ a Statement under 37 CFR 1.97(e), as checked below, or

☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first).

☐ under 37 CFR 1.97(d) together with:

☐ a Statement under 37 CFR 1.97(e), as checked below, and

☐ a \$180.00 fee under 37 CFR 1.17(p), or
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(i):
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☒ Copies of the cited references are enclosed.
- ☐ Copies of cited references are enclosed except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
- ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.

Concise Explanation Requirement (non-English references):

- ☐ The "concise explanation" requirement for reference(s) [] under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
- ☐ the explanation provided in the Specification.
- ☐ submission of the enclosed International Search Report.
- ☐ the enclosed English language abstract.
- ☐ Applicant requests that the following pending applications be considered:

Examiner's
Initials

_____ U.S. Patent Application No. [], by [inventor(s)], filed []
Docket No.: []

_____ U.S. Patent Application No. [], by [inventor(s)], filed []
Docket No.: []

_____ U.S. Patent Application No. [], by [inventor(s)], filed []
Docket No.: []

Examiner_____
Date

- ☒ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the application, including the current claims.]

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

- ☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.
- ☐ Please charge Deposit Account 08-0380 in the amount of \$[]. A copy of this Statement is enclosed.
- ☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

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Dated: 12/7/66

PTO-1449 REPRODUCED				ATTORNEY DOCKET NO. 0918.1305-000		APPLICATION NO. 09/654,401	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION December 7, 2000 (Use several sheets if necessary)				APPLICANT Vladimir Pavlovic and James M. Rahg			
				FILING DATE September 1, 2000		GROUP 2681	
U.S. PATENT DOCUMENTS							
EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	AL						
	AM						
	AN						
	AO						
	AP						
	AQ						
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	Murphy, Kevin P., <i>Switching Kalman Filters</i> , August 21, 1998, pp. 1-16.					
	AS	Murphy, Kevin P., <i>Inference and Learning in Hybrid Bayesian Networks</i> , Report No. UCB/CSD-98-990, January 1998, pp. 1-18.					
	AT	Ghahramani, Zoubin and Hinton, G.E., <i>Variational Learning for Switching State-Space Models</i> , Gatsby Computational Neuroscience Unit,, pp. 1-26.					
EXAMINER				DATE CONSIDERED			

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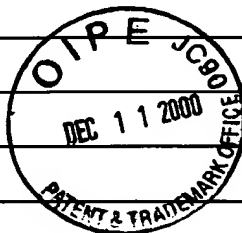
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
AU	Pavlović, Vladimir, et al., <i>Time-Series Classification Using Mixed-State Dynamic Bayesian Networks</i> , In Computer Vision and Pattern Recognition, pp. 609-615, June 1999.		
AV	Pavlović, Vladimir, et al., <i>A Dynamic Bayesian Network Approach to Figure Tracking Using Learned Dynamic Models</i> .		
AW	Welch, Greg and Bishop, Gary, <i>An Introduction to the Kalman Filter</i> , Department of Computer Science, Univ. of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3175, September 17, 1997, pp. 1-16.		
AX	http://www.scs.leeds.ac.uk/scs-only/teaching-materials/HiddenMarkovModels/html_dev/main.html .		
AY	Shumway, R.H. and Stoffer, D.S., <i>Dynamic Linear Models with Switching</i> , Journal of the American Statistical Association, September 1991, Vol. 86, No. 415.		
AZ	Bar-Shalom Y. Li, X-R, <i>Estimation & Tracking: principles, techniques, and software</i> . YBS, Storrs, CT, 1998, pp. 446-484.		
AR2	Jordan, M.I., et al., <i>An Introduction to Variational Methods for Graphical Models</i> , October 11, 1999, http://www.stat.berkeley.edu/tech-reports/index.html , Report#508.		
AS2	Ghahramani, Z., et al., <i>Switching State-Space Models</i> , pp. 1-23. Technical Report CRG-TR-96-3, Dept. of Computer Science, University of Toronto.		
AT2	Rabiner, L.R. and Juang, B.H., <i>An Introduction to Hidden Markov Models</i> , IEEE ASSP Magazine, January 1986, pp. 4-16.		
AU2	Kim, Chang-Jin, <i>Dynamic Linear Models with Markov-Switching</i> , Journal of Econometrics 60, (1994) pp. 1-22.		
AV2	Krishnamurthy, V. and Evans, J., <i>Finite-Dimensional Filters for Passive Tracking of Markov Jump Linear Systems</i> , Automatica, Vol. 34, No. 6, pp.765-770, 1998.		
AW2	Minka, Thomas P., <i>From Hidden Markov Models to Linear Dynamical Systems</i> , pp. 1-10. ftp://vismod.www.media.mit.edu/pub/tpminka/papers/minka-lds-tut.ps.gz .		
AX2	Ghahramani, Z. and Hinton G.E., <i>Parameter Estimation for Linear Dynamical Systems</i> , pp. 1-6, Technical Report CRG-TR-96-2, Dept. of Computer Science, University of Toronto.		
AY2	A Brief Introduction to Graphical Models and Bayesian Networks, http://www.cs.berkeley.edu/~murphyk/Bayes/bayes.html , pp. 1-19.		
AZ2	Maybeck, P.S., <i>Stochastic Models, Estimation, and Control</i> , Vol. I Academic Press, 1979.		
EXAMINER		DATE CONSIDERED	